Immobilization method of PDA(Polydiacetylene) liposome by interlinker

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This study is experiment which induces a signal amplification of biochip for detection of pathogenicity microorganism by uses ethylenediamine. Biochip is manufactured for detection of *Cryptosporidium* that be considerably increases incidence and be resistant to tolerance. And conducted experiment that prepared PDA chip by directly conjugate mono clone antibody of *C. parvum* oocyst in substituted surface of PDA liposome with streptavidin. But it was occurred problems that washed PDA liposome on slide in process that conjugates mono clone antibody with surface of PDA liposome. Exactly PDA liposome was not constituted monolayer and we concluded that multilayered liposome on other liposome was detached when conjugated with high molecular weight IgM (900 KDa, anti-*C. parvum* oocyst), except for covalent bonded PDA liposome with glass slide. We did not induce monolayer for solution of problem, induced interlinker between liposome and stably fixed by the diamine. So we obtained effect of signal amplification more than biochip of monolayer PDA liposome. In this study, we concluded optimum quantity of ethyenediamine and experimented that amplified signal by mixture of hexamethylenediamine and ethylenediamine.